

THE MINERAL INDUSTRY OF KUWAIT

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Kuwait's economy revolved around the production and refining of hydrocarbons, which contributed more than 50% of Kuwait's gross domestic product (GDP) at current prices, accounted for about 91% of Government revenue, and employed about 3% of the nation's population. The GDP at constant prices increased by 7.2% in 2004 compared with 9.7% in 2003. Based on purchasing power parity valuation, the GDP in 2004 was estimated to be \$36.13 billion. Of the world's leading crude oil producers, Kuwait ranked 12th. Among the natural gas producers, it ranked 37th (KPC World, 2004a; BP p.l.c., 2005, p. 6, 22; Central Bank of Kuwait, 2005¹; International Monetary Fund, 2005²).

Trade

A majority of exports and imports were transported by sea. In 2004, total exports (free on board) were valued at \$28.8 billion,² of which oil exports accounted for about \$26.7 billion and manufactured fertilizer exports accounted for \$120 million. In 2003, the revised value of total exports was \$20.7 billion, of which oil exports accounted for about \$19 billion and manufactured fertilizer exports accounted for \$106 million. Total imports (cost, insurance, and freight paid to point of destination) in 2004 were estimated to be \$12 billion compared with \$11 billion in 2003 (Central Bank of Kuwait, 2005³).

Commodity Review

Industrial Minerals

Salt.—Ahli Industrial Projects Co. completed a plant to purify imported salt. Output would supplement production of its marine salt facility at Shuaiba. Produced salt was used primarily to produce chlorine, sodium hydroxide, and sodium hypochlorite.

Sulfur.—Kuwait National Petroleum Co. K.S.C. (KNPC) installed two new sulfur extraction units at the Mina Abdulla crude oil refinery.

Mineral Fuels

Coke.—In 2004, negotiations continued regarding the construction of a 350,000-metric-ton-per-year (t/yr)-capacity calcined coke plant. Petroleum Coke Industries Corp. planned to have the \$130-million to \$150-million plant in operation by 2007. KNPC, which operated a 600,000-t/yr-capacity petroleum coke plant at its Mina Abdulla refinery, was to provide the green petroleum coke feedstock to the calcine plant (KPC World, 2004b; Kuwait National Petroleum Co. K.S.C., undated⁴).

Natural Gas.—Domestic Kuwaiti natural gas production was insufficient to meet the demand of the industrial and power sectors, and output volumes varied because Kuwaiti gas production was associated with crude oil production that was subject to OPEC production quotas. In 2004, the Ministry of Energy continued negotiations to import natural gas, and a contract to import about 991,000 cubic meters per day from Iraq by October 2005 was signed. The initial import of more than 8 million cubic meters per day of natural gas from Iran, which originally was scheduled to begin in 2005, was rescheduled to begin in 2007. Negotiations continued for an offshore natural gas pipeline that would transport 8 billion to 15 billion cubic meters per year of natural gas from Qatar. Because of the insufficient supply of gas, the Kuwait Government delayed its planned program (originally scheduled to start in 2005) to substitute imported natural gas for the fuel oil that fired the country's powerplants (Petroleum Economist, 2003; Iran Daily, 2005; Ministry of Oil, 2004⁵).

Oil.—Parliament continued to discuss Project Kuwait, which was a proposed \$7 billion project to expand production by foreign oil companies at five oilfields in northern Kuwait to about 900,000 barrels per day (bbl/d) from 450,000 bbl/d. Because the Kuwaiti constitution prohibited foreign ownership of Kuwaiti mineral resources, the proposed Project Kuwait development was to be performed by international oil companies under service contracts that would allow ownership of the oil resources to remain under Government control. Kuwait Oil Co., which was a subsidiary of Kuwait Petroleum Corp., also proposed a new strategic program to produce an additional 900,000 bbl/d of heavy crude oil by 2020 and to increase natural gas exploration activity in Kuwait (Oster, 2003⁶; Platts, 2004⁷; Fardan, 2005⁸).

KNPC, which was a subsidiary of Kuwait Petroleum Corp., continued preparations for a new refinery at Shuaiba. The 450,000 bbl/d refinery was expected to cost \$1 billion. In addition to the new sulfur extraction units at the Mina Abdulla refinery, KNPC planned additional work on the company's older refineries to facilitate the production of low- and ultra-low-sulfur fuels from Kuwaiti crude oil, which was in the medium- to high-sulfur range. Because of the mandated reduction of the sulfur content of automotive fuels in Japan in 2004 and the similar reduction scheduled to take place in Korea by 2006, Asian importers of Kuwaiti crude oil were being

¹References that include a section mark (§) are found in the Internet References Cited section.

²Where necessary, values have been converted from Kuwaiti dinars (KD) to U.S. dollars (US\$) at the rate of KD0.294=US\$1.00 for 2004 and KD0.298=US\$1.00 for 2003.

forced to upgrade their domestic petroleum refineries to produce low-sulfur fuels (KPC World, 2005; Middle East Economic Digest, 2005; Platts, 2005§).

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Major Source of Information

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TABLE 1
KUWAIT: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

| Commodity ² | 2000 | 2001 | 2002 ^c | 2003 ^c | 2004 ^c |
|---|----------------------|---------|----------------------|----------------------|----------------------|
| Cement | 1,187,000 | 920,700 | 1,584,000 | 1,600,000 | 1,600,000 |
| Lime, hydrated and quicklime ^c | 40,000 | 40,000 | 40,000 | 40,000 | 40,000 |
| Natural gas: ^{c,3} | | | | | |
| Gross million cubic meters | 11,000 | 10,900 | 9,900 | 10,000 | 11,000 |
| Dry do. | 9,600 | 9,500 | 8,700 | 8,800 | 9,600 |
| Natural gas liquids ^c thousand 42-gallon barrels | 41,100 | 44,300 | 40,000 | 40,000 | 45,000 |
| Nitrogen: | | | | | |
| N content of ammonia | 409,500 | 400,000 | 414,400 ⁴ | 444,400 ⁴ | 413,400 ⁴ |
| N content of urea | 287,600 | 290,000 | 320,000 | 330,000 | 320,000 |
| Petroleum: | | | | | |
| Crude ³ thousand 42-gallon barrels | 766,000 | 745,000 | 680,000 | 817,000 | 880,000 |
| Refinery products: ^c | | | | | |
| Liquefied petroleum gases do. | 2,997 ⁴ | 3,000 | 3,000 | 3,000 | 3,000 |
| Gasoline, motor do. | 11,757 ⁴ | 10,000 | 15,000 | 15,000 | 15,000 |
| Kerosene do. | 45,049 ⁴ | 30,000 | 45,000 ^r | 45,000 ^r | 45,000 |
| Distillate fuel oil do. | 83,981 ⁴ | 70,000 | 85,000 ^r | 85,000 ^r | 85,000 |
| Residual fuel oil do. | 57,116 ⁴ | 60,000 | 75,000 ^r | 75,000 ^r | 75,000 |
| Other do. | 71,769 ⁴ | 70,000 | 80,000 | 86,000 ^r | 86,000 |
| Total do. | 269,672 ⁴ | 240,000 | 300,000 ^r | 306,000 ^r | 306,000 |
| Salt ^c | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 |
| Sulfur: ^c | | | | | |
| Elemental, petroleum byproduct | 512,000 | 524,000 | 634,000 | 714,000 | 730,000 |
| Sulfuric acid | 100,000 | 150,000 | 150,000 | 150,000 | 150,000 |

^cEstimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. ^rRevised.

¹Table includes data available through June 20, 2005.

²In addition to commodities listed, caustic soda, chlorine, clays, clay products, petroleum coke, and sand and gravel were produced, but available information is inadequate to make estimates of output.

³Includes Kuwait's share of production from the Partitioned Neutral Zone.

⁴Reported figure.